

## Revisionary notes on the genus *Coloneura* Foerster with description of a new subgenus, *Coloneurella*, from the Netherlands (Hym., Braconidae, Alysiinae)

by

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**ABSTRACT.** — A new subgenus and species of *Coloneura* Foerster, viz., *Coloneurella rectinervis* subgen. et spec. nov., are described from the Netherlands. Keys to the subgenera of *Coloneura* and to their species are added and the type species of the nominate subgenus, *Coloneura stylata* Foerster, is redescribed.

### INTRODUCTION

During my research on the Dutch Braconidae I discovered an apparently new species, belonging to the tribe Dacnusi of the subfamily Alysiinae. It is rather peculiar because the subdiscoideus is interstitial (fig. 8), a character-state never observed before in the Dacnusi. As stated by Griffiths in the first part of his large revision of the Dacnusi (1964:839): "The manner in which reduction of Cu 1 has occurred in the Dacnusi is different from that found in other Alysiinae. In the Dacnusi the transverse section of Cu 1 is always retained and the point of origin of Cu 1<sub>a</sub> never migrates towards the junction of Cu 1 with 1m-cu; but the apical branches of Cu 1 (Cu 1<sub>a</sub> and Cu 1<sub>b</sub>) tend to become weakened or lost, leaving cell 2Cu open at its lower distal corner . . .". Griffiths' statement concerning the Dacnusi is incorrect as shown by the discovery of the new species and subgenus described in the present paper.

The biology of the new species is unknown, but the larva of the most nearly related species, viz., *Coloneura (Coloneura) stylata* Foerster is a parasite of Agromyzidae-larvae (Diptera) mining in thallose liverworts.

For the terminology used, see Van Achterberg, 1976 (p. 160—166), and for a list of pertinent literature, see Shenefelt, 1974 (p. 1079—1081).

### Genus *Coloneura* Foerster, 1862

Type species: *Coloneura stylata* Foerster.

**Diagnosis.** — Eye bare; palpi short, length of maxillary palp shorter than height of head; mandible with three teeth, comparatively slender (fig. 7, 19); first brachial cell widely open at least at its lower distal corner (fig. 8, 16); metapleural pubescence virtually absent or if present (in the subgenus *Priapsis* Nixon), it does not form a rosette; metanotum more or less protruding (fig. 1, 10); pterostigma not sexually dimorphic; dorsope distinctly developed (fig. 3, 20); second and following tergites smooth; ovipositor sheath short, more or less widened medially (fig. 6, 13).

**Distribution.** — Palaearctic: eight species.

### Key to the subgenera of *Coloneura* Foerster

1. First discoidal cell open distally (fig. 8); pterostigma triangular, short (fig. 8); cu 1 absent; scutellum transversely rugose (fig. 4) . . . . . *Coloneurella* subgen. nov.
- First discoidal cell closed distally (fig. 16); pterostigma elliptical, long (fig. 16); cu 1 present (sometimes rather weakly pigmented); scutellum smooth (fig. 14) . . . . . 2
2. First discoidal cell open ventrally, sm 2 almost completely absent (fig. 16) . . . . . *Coloneura* Foerster, 1862
- First discoidal cell closed ventrally, except for the distal corner, sm 2 present . . . . . *Priapsis* Nixon, 1943

*Coloneurella* subgen. nov.

Type species. *Coloneura rectinervis* spec. nov.

Diagnosis. — Antennal segments 17; maxillary palp 5-segmented; labial palp 3-segmented; pronope absent; notauli present in anterior half of mesoscutum, crenulate; mesoscutum without medial suture or pit; scutellum transversely rugose; pterostigma short, triangular; first brachial cell completely open ventrally; subdiscoideus interstitial (fig. 8); cu 1 and nervellus absent; precoxal suture complete, crenulate; pleural suture sculptured.

Biology: unknown.

Distribution. — Palaearctic: one species.

*Coloneura (Coloneurella) rectinervis* spec. nov.

(fig. 1—9)

Holotype, ♀, length of body 1.8 mm; length of fore wing 1.8 mm.

Head. — Third antennal segment 1.3 times fourth segment, length of third and fourth segments 5.0 and 3.0 times their width, respectively; penultimate segments of antenna 1.4—1.6 times their width; antenna slightly widened apicad and narrowed near its third segment; eye rather small (fig. 1); dorsal length of eye 0.6 times temple; temple slightly widened apicad (fig. 2); head with some short setae; ocelli small (fig. 2); P-OL:  $\emptyset$  ocellus: OOL = 16 : 5 : 25; occipital suture shallow, finely crenulate (fig. 2); frons smooth, rather convex; face glossy, convex, weakly sculptured near antennal sockets and near the anterior tentorial pits (fig. 9); anterior tentorial pits deep, large, distance from eye about equal to its height (fig. 9); clypeus convex, glossy, superficially sculptured, its median 0.3 with a straight, thin and narrow apical margin; epistomal suture present; occipital flange comparatively large (fig. 1); length of malar space 0.9 times basal width of mandible; malar suture absent; medial length of mandible 2.5 times its maximum width, first and third tooth lobe-shaped and blunt, second tooth slender and sharp (fig. 7, 1, 9); surface of mandible superficially punctate medially, without carinae; width of head 1.4 times width of mesoscutum.

Mesosoma. — Length of mesosoma 1.1 times its height; dorsal half of sides of pronotum almost smooth, its ventral half irregularly and rather superficially sculptured; dorsally pronotum with a transverse suture and a short carina; epicnemial suture almost smooth, strongly impressed (fig. 1); precoxal suture wide, its anterior two-thirds distinctly crenulate and its surroundings smooth; pleural suture shallow, its dorsal third almost smooth and its ventral two-third shallowly crenulate; episternal scrobe large and deep, sculptured (fig. 1); metapleural flange large, rather blunt; metapleura coarsely reticulate; notauli present in basal half only, and rather superficially crenulate; posterior half of mesoscutum almost completely smooth, without grooves, convex and glossy; scutellar suture wide and long, with one distinct longitudinal carina and with some rugae laterally; scutellum dull, its sides smooth except for some short striae and without a lateral carina; dorsal surface of propodeum with a small area (fig. 3), short rugae and a strongly developed posterior transverse carina, its posterior surface much longer than dorsal surface (fig. 1), with some rugae, except for the posterior and lateral carinae; propodeal spiracle small, flat.

Wings. — Metacarp ends near apex of radial cell; parastigma indistinct; medial vein weakly developed basad; r 2 slightly but evenly curved; d 1 : d 2 = 5 : 22; nervulus short, forming an arc with sm 1 (fig. 8); apical fringe long.

Legs. — Hind leg almost smooth, its femur, tibia and basitarsus 5.0, 11.5 and 7.5 times their width, respectively (fig. 5); hind tibial spurs very short, almost invisible; all tarsal claws simple, slender.

Metasoma. — Length of first tergite 0.9 times its apical width, its surface rather smooth, with some striae posteriorly (fig. 3), convex medially, spiracle flat, dorsal carinae complete, forming one carina in posterior half of tergite, glymma rather narrow, laterope absent; dorsope large and

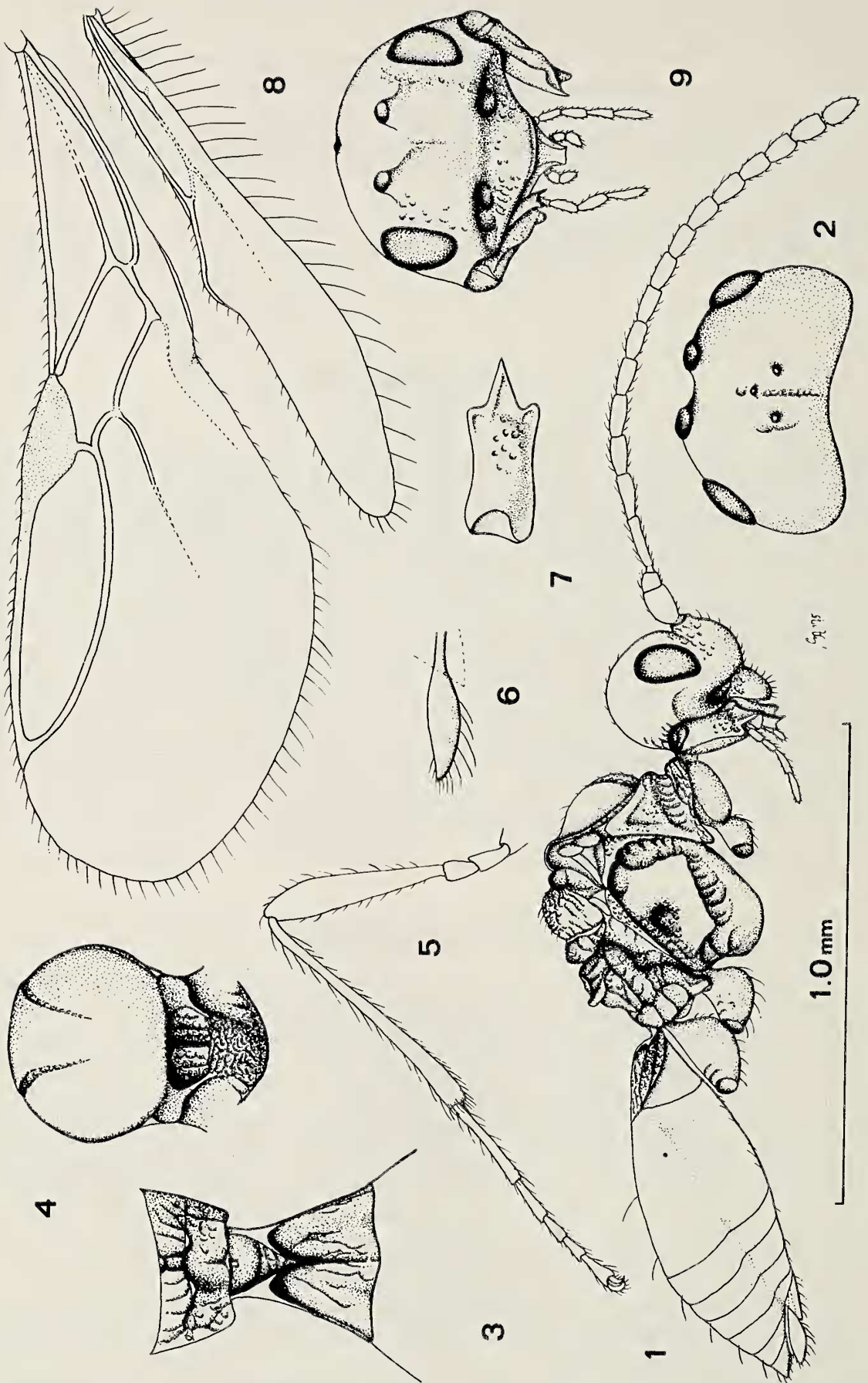


Fig. 1—9. *Coloneura* (*Coloneurella* subgen. nov.) *rectinervis* spec. nov., holotype. 1, habitus, lateral aspect; 2, head, dorsal aspect; 3, propodeum and first metasomal tergite, dorsal aspect; 4, mesonotum, dorsal aspect; 5, hind leg, lateral aspect; 6, ovipositor sheath, lateral aspect; 7, mandible, lateral aspect; 8, wings; 9, head, frontal aspect. (fig. 1, 5, 8: scale-line; 2—4, 9: 1.2 times scale-line; 6, 7: 2.0 times scale-line).

deep; ovipositor straight, its sheath widened medially (fig. 6) and narrowed apicad; length of ovipositor sheath 0.07 times fore wing; metasomal setae in one row per tergite; hypopygium rather small, its margin almost straight apically; metasoma as strongly sclerotized ventrally as dorsally.

Colour. — Black: palpi, mandible and legs, reddish brown; pedicellus and annellus, yellowish; pterostigma dark brown, but its apex light brown.

Holotype in author's collection: „Nederland, Waarder (Z-H), Oosteinde 33, 28-31. V. 1973, C. v. Achterberg”.

#### Subgenus *Coloneura* Foerster, 1862

Syn.: *Trisisa* Foerster, 1862; *Isomerista* Foerster, 1862; *Merites* Nixon, 1943.

Type species: *Coloneura stylata* Foerster.

Diagnosis. — Antennal segments 17—19; maxillary and labial palpi with 5 and 3 segments respectively; pronope absent; notauli present in anterior third, crenulate; mesoscutum without medial suture or pit; scutellum smooth; pterostigma long, elliptical; first brachial cell open ventrally; subdiscoideus bent towards the lower part of first brachial cell; cu 1 and nervellus present, more or less weakly pigmented; precoxal suture present in anterior-thirds, crenulate; pleural suture smooth.

Biology. — Endoparasites of Agromyzidae-larvae in Bryophyta.

Distribution. — Palaearctic: one species.

#### *Coloneura (Coloneura) stylata* Foerster (fig. 10—20)

Foerster, 1862. Verh. naturh. Ver. preuss. Rheinl. 19:276.

——, 1862. Id.: 275 (as *Trisisa exilis*).

——, 1862. Id.: 275 (as *Isomerista oligomera*).

Nixon, 1943. Entomologist's mon. Mag. 79:28 (as *Merites taras*)

Redescribed after the ♀ in the Ruthe Collection, length of body 1.2 mm, length of fore wing 1.5 mm.

Head. — Third antennal segment 1.1 times fourth segment, length of third and fourth segments 3.5 and 3.3 times their width, respectively; maxillary palp about as long as height of eye; eye medium-sized (fig. 10, 11); dorsal length of eye 0.9 times temple; temple subparallel behind eyes (fig. 18); head with some rather long setae; ocelli small (fig. 18); P-OL:  $\emptyset$  ocellus: OOL = 7 : 3 : 10; occipital suture deep (fig. 18); frons smooth, evenly convex; face smooth, moderately convex; anterior tentorial pits deep, medium-sized (fig. 11); clypeus smooth and convex, its apical margin straight medially, wide, thin, and bent inwards (fig. 11); epistomal suture present; occipital flange absent; length of malar space 0.2 times basal width of mandible; malar suture absent; medial length of mandible (with full sight on third tooth) 1.3 times its maximum width, the medial tooth sharp and slender, both lateral teeth obtuse, wide and lobe-shaped with a weakly developed carina from its first tooth (fig. 10, 17, 19), its surface almost smooth; width of head 1.4 times width of mesoscutum.

Mesosoma. — Length of mesosoma 1.2 times its height; side of pronotum smooth except for some short medial crenulae; ventral half of epicnemial suture deeply and regularly crenulate and its dorsal half almost smooth (fig. 10); precoxal suture rather wide and deep, only its anterior two-thirds crenulate; pleural suture smooth; episternal scrobe large, deep and wide (fig. 10); metapleural flange weakly developed, bordered by a narrow carina; metapleura mainly smooth, except for some carinae ventrally, rather bare; anterior third of notauli crenulate and absent in its the posterior two-thirds of mesoscutum; mesoscutum rather flat, smooth, bare except for some setae along the imaginary course of the notauli (fig. 14); scutellar suture medium-sized and wide, with one distinctly developed longitudinal carina; scutellum moderately convex, and glossy, its sides smooth, without lateral carina; dorsal surface of propodeum

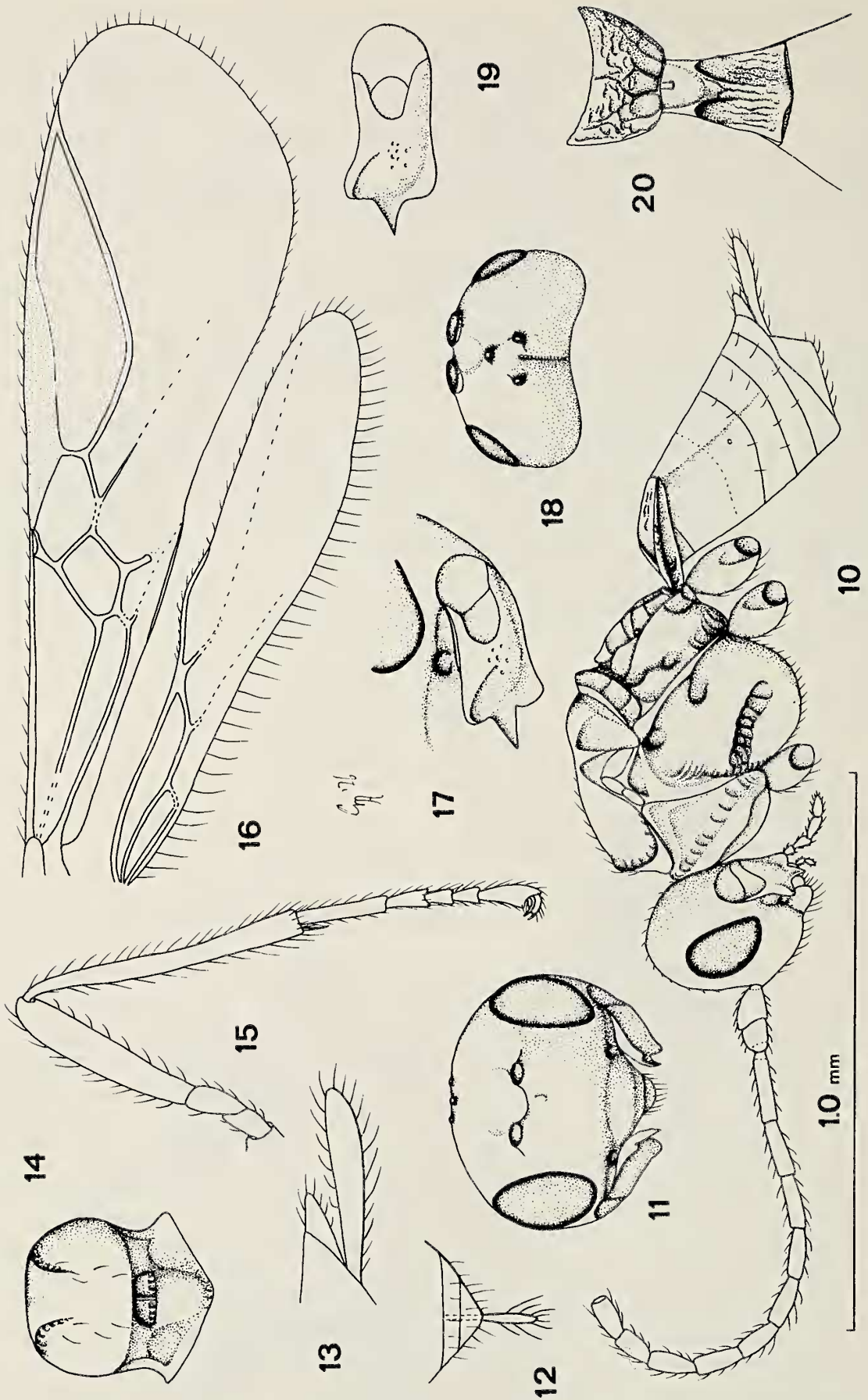


Fig. 10—20. *Coloneura (Coloneura) stylata* Foerster, ♀, Ruthe Collection. 10, habitus, lateral aspect; 11, head, frontal aspect; 12, apex of metasoma, dorsal aspect; 13, ovipositor sheath, lateral aspect; 14, mesonotum, dorsal aspect; 15, hind leg, lateral aspect; 16, wings; 17, mandible, lateral aspect with full sight on third tooth; 18, head, dorsal aspect; 19, mandible, lateral aspect with full sight on first tooth; 20, propodeum and first metasomal tergite, dorsal aspect. (Fig. 10, 12, 14—16, 18, 20: scale-line; 13, 17, 19: 2.0 times scale-line; 11: 1.2 times scale-line).

irregularly rugose, its medial carina not developed and its posterior surface not distinctly separated from the dorsal surface and with a posterior medial area (fig. 20); propodeal spiracle small, flat.

Wings. — Metacarp ends near apex of radial cell; first discoidal cell petiolate; r 2 distinctly bent (fig. 16); nervulus short; d 1 : d 2 = 8 : 17; medial vein indistinctly developed basally; parastigma rather small, narrow (fig. 16); n. rec. far antefurcal; cu 1 rather weakly pigmented.

Legs. — Hind leg smooth, its femur, tibia and basitarsus 4.4, 7.8 and 5.0 times their width, respectively; length of spurs of hind tibia about a third of basitarsus; all claws small, simple, rather slender.

Metasoma. — Length of first tergite 1.2 times its apical width, its surface irregularly, rather superficially striate (fig. 20), convex, its dorsal carinae distinctly developed in the medial third of the tergite, spiracle flat; glymma very wide anteriorly, laterope deep, medium-sized; dorsope deep and large; the sparse setae mainly in rows; ovipositor straight, its sheath slightly widened submedially (fig. 13); length of ovipositor sheath 0.13 times fore wing, its dorsal aspect with some outstanding setae (fig. 12); hypopygium rather large (fig. 10).

Colour. — Brownish; palpi, labrum, tegulae and legs, yellowish; metasoma darker apicad.

Redescribed after a ♀ from the Ruthe Collection (British Museum (Natural History)): „59—101, Germany”, „*D. atomaria* m.” (in Ruthe’s handwriting), „Merites taras Nixon, G. E. J. Nixon det. 1954”.

Note. — Parasite of larvae of *Liriomyza mesnili* d’Aguilar in thalli of *Riccia beyrichiana* Hampe (Marchantiales).

Subgenus *Priapsis* Nixon, 1943

Type species: *Priapsis dice* Nixon.

Diagnosis. — Antennal segments 16—32; maxillary and labial palps usually with 6 and 4 segments respectively, maxillary palp occasionally with 5 segments (*C. (P.) siciliensis* Griffiths); pronope present or absent; notauli almost complete to completely absent; scutellum smooth; pterostigma long, elliptical; first brachial cell only open at its lower distal corner; precoxal suture variable, sometimes completely absent.

Biology. — Endoparasites of larvae of Agromyzidae mining in Angiospermae.

Distribution. — Palaearctic: six species.

Key to species of the subgenus *Priapsis* Nixon  
(after Griffiths, 1968; modified)

1. Antennal segments 25—32; legs almost entirely yellowish; metapleural pubescence dense and adpressed . . . . . 2  
— Antennal segments 16—22; legs partly or wholly black; metapleural pubescence sparser . . . . . 4
2. Length of fore wing 2.4—2.7 mm; ovipositor sheaths shortly projecting beyond the apical tergite in the retracted position; precoxal suture comparatively wide and distinctly rugose-crenulate . . . . . *major* Griffiths, 1967  
— Length of fore wing 2.1 mm or less; ovipositor sheaths not projecting beyond the apical tergite in the retracted position; precoxal suture narrow, smooth or only weakly rugose . . . . . 3
3. Antennal segments of ♀ 30—32, of ♂ 31; ventral half of pronotum with conspicuous whitish pubescence . . . . . *danica* Griffiths, 1968  
— Antennal segments of ♀ 26, of ♂ 25—27; pronotal pubescence finer, not conspicuous . . . . . *arestor* Nixon, 1954
4. Precoxal suture almost or completely absent; antennal segments 16—19; first metasomal tergite bare ventrally but pubescent along its sides; notauli completely absent . . . . . 5  
— Precoxal suture wide, rugose-crenulate; antennal segments 21—22; first tergite virtually bare; notauli reaching about the middle of the mesoscutum . . . . . *ate* (Nixon, 1943)
5. Mesoscutum virtually bare dorsally; maxillary palp 6-segmented; first tergite shallowly sculptured centrally . . . . . *dice* (Nixon, 1943)

- Mesoscutum at least with two or three rows of fine setae along the imaginary course of the notauli; maxillary palp 5-segmented; first tergite completely smooth centrally  
 . . . . . *siciliensis* Griffiths, 1968.

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#### LITERATURE

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 ———, 1968. Id. / 5. The parasites of *Liriomyza* Mik and certain small genera of Phytomyzinae. — *Beitr. Ent.* 18: 5—62, fig. 171—185, table 18—23.  
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ANCILOTTO, A., A. GROLLO, S. ZANGHERI, 1970. I BRUCHI. Uitgever Arnoldo Mondadori, Milano. pp 201, pl. 1 — 275. Prijs Lire 9000.

Dit boek is vermeld bij de nieuwe aanwinsten voor de bibliotheek, maar daar de korte Italiaanse titel niet veel zegt, is het wel gewenst de inhoud aan te geven. Bruchi (enkelvoud bruco) zijn rupsen. Het boek is dan ook speciaal gewijd aan de larven van de Lepidoptera, waarvan 275 soorten afgebeeld worden, soms in verschillende kleurvormen of stadia. En dat alles in ongelooflijk fraaie kleurenfoto's, de mooiste die ik ooit gezien heb. De tekst is kort en niet moeilijk te begrijpen: verspreiding van de soort, tijd van voorkomen van de rups en voedselplant(en). — Lpk.

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STARÝ, P., 1976. APHID PARASITES (HYMENOPTERA, APHIDIIDAE) OF THE MEDITERRANEAN AREA. Dr. W. Junk, B. V., Den Haag, Academia Prague, 95 blz., inclusief 6 geografische kaarten en 8 blz. met morfologische details + 6 blz. reproducties van foto's, voornamelijk biotopen. ISBN 90-6193-029-4. Prijs (ingenaaid) f 30.—

Sedert Mackauer en Starý ongeveer twintig jaar geleden met de bewerking van de Aphidiidae zijn begonnen, behoort deze familie van bladluisparasieten tot de best bekende groepen van parasitaire Hymenoptera, althans wat Europa betreft. Dit geldt niet alleen voor hun systematiek, doch eveneens voor hun biologische en ecologische bijzonderheden, vooral wat betreft hun gastheerspectra. Het onderhavige boekwerk geeft een overzicht van de soorten uit het Middellandse-Zeegebied (Z.-Europa, N.-Afrika en een deel van W.-Azië). Verreweg de meeste soorten komen ook in andere delen van Europa en zelfs in Nederland voor. Bijzondere aandacht is besteed aan de geografische verspreiding, biologische en ecologische gegevens en de toepassing van een aantal soorten voor de biologische en geïntegreerde bestrijding.

Een determineertabel moet dienen om de soorten te identificeren. Helaas zijn de kenmerken vaak te summier en onduidelijk, bijvoorbeeld waar men een keuze moet maken tussen antennen met 19-20 en met 18-19 leden. In dergelijke gevallen kan kennis van de gastheerbladluis noodzakelijk zijn.

De omgrenzing van de soorten is blijkbaar een netelige kwestie. Dit wordt duidelijk uit een vergelijking met het werk van dezelfde auteur uit 1966: *Aphid parasites of Czechoslovakia*, eveneens uitgegeven door Junk. Vooral in het grote en moeilijke genus *Aphidius* is heel wat veranderd. Er zijn nogal wat toen als afzonderlijk beschouwde soorten nu samengevat. Zodoende komt een aantal door Starý zelf beschreven soorten als synoniemen te vervallen. De nieuwere inzichten maken dit boek, niet alleen voor het faunagebied waarvoor het bestemd is, tot een nuttige aanvulling op de kennis van de Europese Aphidiidae. — H. H. Evenhuis.